

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Previously Presented): A process for the catalytic hydrodehalogenation of SiCl_4 to form HSiCl_3 , which comprises:

bringing a gaseous feed mixture comprising hydrogen and silicon tetrachloride into direct contact with at least one heating element of a resistance heating device, wherein the heating element is made from at least one metal material selected from the group consisting of tungsten, niobium, tantalum, an alloy comprising tungsten, an alloy comprising niobium, and an alloy comprising tantalum; and

heating the gaseous feed mixture by contacting the gaseous feed mixture with the heating element to catalytically hydrodehalogenate the silicon tetrachloride with the hydrogen and form a product mixture comprising HSiCl_3 ; and

performing at least one of the following:

- (a) fractionating or at least partially condensing the product mixture, and
- (b) passing the product mixture from the heating as a starting material to a direct further use.

Claim 2 (Previously Presented): The process as claimed in claim 1, wherein said heating element is made from tungsten.

Claim 3 (Previously Presented): The process as claimed in claim 1, wherein the heating is carried out with at least one heating element in the form of at least one selected from the group consisting of a wire, a spiral, a web, a tube, a plate, a mesh and a honeycomb body.

Claim 4 (Previously Presented): The process as claimed in claim 1,
wherein the heating is carried out with a heating element having a wire diameter, wall thickness, plate thickness or layer thickness of from 0.1 mm to 10 mm.

Claim 5 (Previously Presented): The process as claimed in claim 1,
wherein the heating is carried out with the heating elements of the resistance heating device operated at a temperature in the range from 300 to 1250°C.

Claim 6 (Previously Presented): The process as claimed in claim 1,
wherein the heating is carried out at a temperature in the range from 600 to 950°C and a pressure of from 0.1 to 100 bar abs.

Claim 7 (Previously Presented): The process as claimed in claim 1,
wherein the heating is carried out at a space velocity of from 2000 to 750,000 h⁻¹ and the gaseous feed mixture is contacted with the heating elements of the resistance heating device at a linear velocity of from 0.01 to 10 m/s.

Claim 8 (Previously Presented): The process as claimed in claim 7,
wherein the feed mixture comprises SiCl₄ and H₂ in a molar ratio of from 1:0.9 to 1:20.

Claim 9 (Previously Presented): The process as claimed in claim 7, further comprising:
setting the electric power of the resistance heating device to set a degree of conversion of SiCl₄ to HSiCl₃.

Claim 10 (Previously Presented): The process as claimed in claim 1,
wherein the heating is carried out in a flow reactor whose walls or wall insides are made from at least one selected from the group consisting of niobium, tungsten, tantalum, a niobium, tungsten, tantalum-containing alloy, a heat-resistant glass, fused silica, a heat-resistant glaze and a heat-resistant ceramic.

Claim 11 (Previously Presented): The process as claimed in claim 7,
further comprising:
passing the product mixture through at least one heat exchanger to vaporize SiCl_4 and/or preheat the H_2/SiCl_4 -containing feed mixture.

Claim 12 (Previously Presented): The process as claimed in claim 11,
wherein the product mixture is at least partially condensed, liquid HSiCl_3 is isolated and any hydrogen and silicon tetrachloride obtained are recirculated to the feed stream to the process.

Claim 13 (Previously Presented): The process as claimed in claim 1, wherein said heating element is made from niobium.

Claim 14 (Previously Presented): The process as claimed in claim 1, wherein said heating element is made from tantalum.

Claim 15 (Previously Presented): The process as claimed in claim 1, wherein said heating element is made from an alloy comprising tungsten.

Claim 16 (Previously Presented): The process as claimed in claim 1, wherein said heating element is made from an alloy comprising niobium.

Claim 17 (Previously Presented): The process as claimed in claim 1, wherein said heating element is made from an alloy comprising tantalum.

Claim 18 (Previously Presented): The process as claimed in claim 1, wherein said method includes passing the product stream from said reaction as starting material to a direct further use and said further use is selected from the group consisting of esterification with an alcohol to form alkoxysilanes, hydrosilylation for converting olefins into organochlorosilanes, preparation of monosilane, preparation of solar silicon, and preparation of pyrogenic silica.

Claim 19 (Previously Presented): The process of claim 1, wherein the gaseous feed mixture is contacted with the heating element and heated at a pressure of from 1 to 10 bar absolute.

Claim 20 (Currently Amended): The process of claim 1, wherein the gaseous feed mixture is contacted with the heating element and heated at a pressure of from 1.5 to 10 bar absolute.

Claim 21 (Previously Presented): The process of claim 1, wherein the heating element consists of the metal material.

Claim 22 (Previously Presented): The process of claim 1, wherein the heating element comprises the metal material.

Claim 23 (Previously Presented): The process of claim 1, wherein the process comprises heating the feed mixture at a temperature in the range from 600 to 950°C and a pressure of from 0.1 to 100 bar abs, and fractionating or at least partially condensing the product mixture.

Claim 24 (New): The process as claimed in claim 1, wherein the silicon tetrachloride is catalytically hydrodehalogenated to convert at least 15.3% of the silicon tetrachloride to HSiCl_3 .

Claim 25 (New): The process as claimed in claim 1, wherein at least 21.1% of the silicon tetrachloride is catalytically dehydrohalogenated to form HSiCl_3 .

Claim 26 (New): The process as claimed in claim 1, comprising:
fractionating or at least partially condensing the product mixture to obtain a purified product consisting of HSiCl_3 .

Claim 27 (New): The process as claimed in claim 1, wherein the product mixture formed by the catalytic hydrodehalogenation comprises HSiCl_3 and HCl .

Claim 28 (New): The process as claimed in claim 1, wherein the product mixture comprises HCl and HSiCl_3 , and the product mixture is subjected to at least one of fractionating and at least partial condensation.

Claim 29 (New): The process as claimed in claim 1, wherein the HSiCl_3 of the product mixture consists of HSiCl_3 formed by catalytically hydrodehalogenating the silicon tetrachloride.

Claim 30 (New): The process as claimed in claim 1, wherein said heating element is made from tungsten or an alloy comprising tungsten.